



Dunstable Water Department

2017

PWS ID: #2081000

REPORT ON WATER QUALITY

This report is a snapshot of the quality of the drinking water that we provided last year. The statistics in this report are based on testing done throughout 2017 and prior years. We hope you will find it helpful to know the sources of your water and the process by which safe drinking water is delivered to your home.

Where Does My Water Come From?

The Dunstable Water Department (DWD) uses ground water as its source. We have two wells located off of Main Street that service the center of the town. These wells are called Salmon Brook Well #1 and Well #2. One well at a time runs, with the other used as a backup. The wells are approximately 90 feet deep, gravel packed, with the current capacity to pump 250 gallons per minute. In 2017, the system included over 1 mile of water main, 101 services, and less than 1000 users.

Water Quality



It's Their Legacy

SHOULD SOME PEOPLE TAKE SPECIAL PRECAUTIONS?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800)426-4791.

Maintaining Water Quality

The Dunstable Water Department continuously strives to produce the highest quality water possible to meet or surpass every water quality standard. We monitor both our sources and distribution system very closely. The standards we operate under were enacted by the U.S. Congress as the Safe Drinking Water Act in 1974 and were amended in 1986 and 1996.

In order to ensure tap water is safe to drink, the DES and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) and Massachusetts Department of Public Health regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Opportunities to Participate

Monthly Meetings

The Water Department meets on the 4th Tuesday of each month at 6:00pm at the Dunstable Town Hall. The public is welcome at these meetings.

Contact Us

If you have any questions about your water quality, the information contained in this report or your water service in general; please call us at our office

978-649-4514 x230 Mon: 1-6:30pm;

Tues & Thurs- 8am-3pm; Wed 12-5pm

Contact us at: water@dunstable-ma.gov

Fax: 978-649-8893

Emergency Only—Police 978-649-7445

Board of Commissioners

Karl Huber—Chairman

John O'Brien—Commissioner

Scott Wilkins—Commissioner

DISTRIBUTION SYSTEM WATER QUALITY

This report summarizes only those items detected during sampling - not all contaminants that are monitored.

Microbial Results	Highest # Positive in a Month	Total # Positive	MCL	MCLG	Violation	Possible Source of Contamination
Total Coliform	0	0	1	0	No	Naturally present in the environment
E. Coli	N/A	0	*	0	No	Human and animal fecal waste

*Compliance with Fecal Coliform / E. Coli MCL is determined upon additional repeat testing.

Total Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system.

Lead & Copper	Date(s) Collected	90th Percentile of Sample	Action Level	MCLG	# of Sites sampled	# of Sites Above Action Level	Exceeds Action Level?	Possible Source of Contamination
Lead (ppb)	2017	2.5	15	0	10	0	No	Corrosion of household plumbing systems
Copper (ppm)		0.214	1.3	1.3			No	Corrosion of household plumbing systems

TESTING FOR LEAD

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. **Dunstable Water Department** is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

SOURCE WATER CHARACTERISTICS

Key to Tables

- ppm – Parts per million, corresponds to one penny in \$10,000
- ppb – Parts per billion, corresponds to one penny in \$10,000,000
- ppt—Parts per trillion, corresponds to one penny in \$10 billion
- pCi/L – Picocuries per liter (a measure of radioactivity)
- ND – Not detected
- n/a – not applicable
- RAA –Running annual average
- TT—Treatment technique

The sources of drinking water in the United States (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from

urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production. These contaminants can also come from gasoline storage, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

SUMMARY OF FINISHED WATER CHARACTERISTICS

<u>Regulated Contaminants</u>	Date(s) Collected	Highest Detect Value	Range Detected	MCL	MCLG	Violation	Possible Source of Contamination
Inorganic Contaminants							
Nitrate (ppm)	5/31/2017	2.74	2-2.74	10	10	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Perchlorate (ppb)	8/25/17	ND	n/a	2	n/a	No	Rocket propellants, fireworks, munitions, flares, blasting agents
Radioactive Contaminants							
Gross Alpha Emitters (pCi/L)	5/30/17	0.2	n/a	15	0	No	Erosion of natural deposits
Radium 226 & 228 (combined values)(pCi/L)	2017	0.6	0.1-0.6	5	0	No	Erosion of natural deposits
<u>Unregulated</u>	Date(s) Collected	Result or Range	Average	SMCL	ORSG or Health Advisory	Possible Source of Contamination	
Inorganic Contaminants							
Sulfate (ppm)	2/27/15	9.5-10.6	10.05	250	-	Natural sources	
Sodium (ppm)	5/7/12	26.2-26.4	26.3	-	20	Natural sources; runoff from use as salt on roadways; by-product of treatment process.	

Sodium is a naturally-occurring common element found in soil and water. It is necessary for the normal functioning of regulating fluids in human systems. Some people, however, have difficulty regulating fluid volume as a result of several diseases, including congestive heart failure and hypertension. The guideline of 20 mg/L for sodium represents a level in water that physicians and sodium sensitive individuals should be aware of in cases where sodium exposures are being carefully controlled. For additional information, contact your health care provider, your local board of health or the New Hampshire Department of Environmental Services at (603) 271-3503.

SOME TERMS DEFINED

Action Level (AL): *The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.*

Level 1 Assessment: *A Level 1 Assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in the water system.*

Maximum Contaminant Level Goal (MCLG): *The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety*

Maximum Contaminant Level (MCL): *The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.*

Secondary Maximum Contaminant Level (SMCL): *These standards are developed to protect the aesthetic qualities of drinking water and are not health based.*

Massachusetts Office of Research and Standards Guideline (ORSG): *This is the concentration of a chemical in drinking water, at or below which, adverse, non-cancer health effects are likely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.*

Total Coliform: *A bacteria that indicates other potentially harmful bacteria may be present.*

Unregulated Contaminants: *Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining their occurrence in drinking water and whether future regulation is warranted.*

90th Percentile: *Out of every 10 homes, 9 were at or below this level.*

Source Water Assessment Summary

The MassDEP has prepared a Source Water Assessment Program (SWAP) Report for the water supply source serving the Dunstable Water Department. The report assesses the susceptibility of public water supplies to contamination and makes recommendations.

This report is available from the MassDEP website: <https://www.mass.gov/files/documents/2016/08/ws/2081000.pdf>. If you have any questions, please contact WhiteWater, Inc., at 1-888 377-7678.

A susceptibility ranking of **high** was assigned to all wells in our system by the MassDEP and they meet all US Environmental Protection Agency (EPA) and MassDEP drinking water quality standards.

Be assured that the Dunstable Water Department in concert with its certified operator, WhiteWater, Inc., is addressing the concerns as stated in the SWAP Report and welcomes your input to our planning.



FOR YOUR INFORMATION

In order to ensure that tap water is safe to drink, the Department of Environmental Protection (MassDEP) and U.S. Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water provided to public water systems. The Food and Drug Administration (FDA) and Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

Where to go for more information

Massachusetts Department of Environmental Protection (MassDEP)

<http://www.mass.gov/eea/agencies/massdep/water/drinking/>



Cross Connection Control and Backflow Protection in your water system



Typical Hose Bibb Vacuum Breaker

A Cross Connection means any actual or potential physical connection or arrangement between a pipe conveying potable water from a public water system and any non-potable water supply, piping arrangement or equipment including, but not limited to, waste pipe, soil pipe, sewer, drain, other unapproved sources. The Dunstable Water Department recommends the installation of Hose Bibb type vacuum breakers on all outside faucets. This will protect all residents from the potential of backflow into their homes and the potable water system from a hose connection. Studies have shown that hoses are the most commonly unprotected cross connection. MassDEP and the Dunstable Water Department require the physical separation between the public water supply to your home and a private well used for irrigation or other purposes, these instances will be monitored for compliance. For more information please contact Eric Burkett, Cross Connection Coordinator, WWI at 888-377-7678.